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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/740,200	12/18/2003	Charles R. Obranovich	SYS-P-1230 (8364-90585)	2226

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EXAMINER	
PAUL, DISLER	

ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/740,200	OBRANOVICH ET AL.	
	Examiner	Art Unit	
	DISLER PAUL	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-26; 32;35-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-26;32;35-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments in regard to the "microphone for evaluating the intelligibility of audio received and circuits including a plurality of ambient detectors with at least some of microphones carries by respective one of the detectors" have been further analyzed and persuasive and thus, this new office action is now issued.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4-6; 9-15; 32; 35 are rejected under 35 U.S.C. 102(b) as being anticipated over Albus et al. (2002/0015502 A1).

Re claim 4, Albus et al. disclosed a system comprising: a plurality of fixedly mountable microphones; and circuits coupled to respective microphones including circuitry for evaluating intelligibility of audio received by the respective microphones and generating an indicator of intelligibility on a per microphone basis (fig.1 wt (20-24); par[0027-0028]/evaluating audio signal with noise correlating), the circuits each include a network output port (fig.1 wt (2)), and circuitry that produces pre-stored speech intelligibility test signals

and include audio output device which will audibly produce the speech intelligibility test signals which will be received by the microphones (fig.1; par [0025; 0026-0027]).

Re claim 5, a system as in claim 4, which includes control circuits coupled to the microphones and the audio output device, the control circuits couple electrical representations of the speech intelligibility test signals to the output device (fig.1-2; par [0022;0026]).

Re claim 6, a system as in claim 5 which includes a plurality of audio output devices coupled to the control circuits(fig.1; par [0022;0026]).

Re claim 9, Albus et al. disclosed of a system comprising: a plurality of fixedly mountable microphones; circuits coupled to respective microphones including circuitry for evaluating intelligibility of audio received by the respective microphones and generating an indicator of intelligibility on a per microphone basis, the circuits each include a network output port and where the control circuits which include inherent feature of at lest one of logic or executable instructions for producing speech intelligibility test signals to be audibly output by the at least one audio output device (see claim 4 and further par[0025]).

Re claim 10, the System as in claim 9 which includes inherency of having additional executable instructions for processing the speech intelligibility test signals received from the respective microphones (fig.1; par [0025-0027])).

Re claim 11, Albus et al. disclose of the method comprising: generating providing at least one machine generated at least one speech intelligibility test signal; sensing the speech intelligibility test signal at least one fixed location; evaluating the intelligibility of the sense speech intelligibility test signal(see claim 4 rejection).

Re claim 12, a method as in claim 11, which includes generating a plurality of speech intelligibility test signal("fig.1; par [0025]/form plurality of source").

Re claim 13, a method as in claim 11 which includes sensing the speech intelligibility test signal at a plurality of spaced apart, fixed locations ("*fig.1; par [0022-0023])*").

Re claim 14, a method as in claim 13 which includes: transmitting the sensed speech intelligibility test signal from the plurality of

locations to a common site and then processing same to evaluate intelligibility thereof (*"fig.1 wt (19,22,24)"*).

Re claim 15, a method as in claim 14, wherein the processing of at common site includes the inherent visually presenting processing results (fig.15-18/navigating system).

Re claim 32, Albus et al. disclose of a system comprising: control circuits for producing pre-stored electrical representations of speech intelligibility test signals; at least one audible output device coupled to the control circuits to audibly emit the speech intelligibility test signals, and a plurality of spaced apart acoustic sensors; and circuits coupled to the respective acoustic sensors including circuitry for evaluating intelligibility of audio received by the respective acoustic sensors and generating an indicator of intelligibility on a per acoustic sensor basis (see claim 4 rejection).

Re claim 35, a system as in claim 32, which include a plurality of audio output devices coupled to the control circuits (fig.1).

3. Claims 2-3 are rejected under 35 U.S.C. 102(b) as being unpatentable over Albus et al. (2002/0015502 A1) and further in view of Koike et al. (5,635,903).

Re claim 2, Albus et al. disclosed a system comprising: a plurality of fixedly mountable microphones (fig.1 wt (20)/plurality of microphones); and circuits coupled to respective microphones including circuitry for evaluating intelligibility of audio received by the respective microphones and generating an indicator of intelligibility on a per microphone basis (fig.1 wt (20-24); par[0027-0028]/evaluating audio signal with noise correlating), the circuits each include a network output port (fig.1 wt (2)).

But, Albus et al. fail to disclose of including a plurality of ambient condition detectors with at least some of microphones carried by respective ones of the detectors. But, Koike et al. disclose of a vehicle system wherein further including a plurality of ambient condition detectors (fig.1 wt (2)) for purpose of generating simulating sound dependent on the ambient signals detected. Thus, taking the combined teaching of Albus et al. and Koike et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Albus et al. with the system wherein further including a plurality of ambient condition detectors for purpose of generating simulating sound dependent on the ambient signals detected.

The combined teaching of Albus et al. and Koike et al. as a whole, fail to disclose of the at least some of microphones carried by

respective ones of the detectors. But, official notice is taken the concept of having the least some of microphones carried by respective ones of the detectors is simply the inventor's preference. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the teaching of Albus et al. and Koike et al. as a whole, with having the at least some of microphones carried by respective ones of the detectors for optimally making used of the spacing in the microphone chamber and reduce wiring cost.

Re claims 3, the system in claim 2, where at least some of the circuits are carried by respective ones of the detectors coupled to respective microphones (koike, fig.7) and also carried by the same detector (see claim 2 rejection).

4. Claims 16-17; 40 are rejected under 35 U.S.C. 102(b) as being unpatentable over Albus et al. (2002/0015502 A1).

Re claim 16, the method as in claim 14, but, Albus et al. fail to disclose of the sensed speech intelligibility test signals receive initial processing prior to being coupled to the common site. But, official notice is taken having the sensed speech intelligibility test signals receive initial processing prior to being coupled to the common site is simply the inventor's preference, thus it would have

been obvious for one of ordinary skill in the art to have modified Albus et al. with the sensed speech intelligibility test signals receive initial processing prior to being coupled to the common site for improving the desired acoustic impression.

Re claim 17, the method as in claim 16 with the initial processing conducted on a per location basis and where initially processed results are each indicative of intelligibility of received audio (see claim 16 rejection).

Re claim 40, Albus et al. disclose of the apparatus comprising: a source of pre-stored intelligibility test signals; a plurality of loud speakers coupled to the source so as to broadcast selected test signals; a plurality of microphones which receive at least some of the broadcast test signals (fig.1 (11-14;2))and having at least one detection circuit coupled to a respective microphone for automatically generating a speech intelligibility indicium associated with the respective microphone (fig. Wt (7; 22,24)) and having a displaced site (fig.1 wt (11-14); [par [0025]).

But, Albus et al. fail to disclose of the specific wherein transmitting the indicum to such displaced site. But, official notice is taken the concept of specifically transmitting the indicum to such displaced site is well known in the art. Thus, it would have been

obvious for one of the ordinary skill in the art to have modified Albus et al. with the transmitting the indicum to such displaced site for enabling the user to visually see the audio susceptibility in regard to noise.

5. Claims 7-8; 18-26; 36-39; 41 are rejected under 35 U.S.C. 102(b) as being unpatentable over Albus et al. (2002/0015502 A1) and further in view of Ando et al. (US 2004/0004546 A1).

Re claim 7, Albus et al. disclosed a system comprising: a plurality of fixedly mountable microphones (fig.1 wt (20)/plurality of microphones); and circuits coupled to respective microphones including circuitry for evaluating intelligibility of audio received by the respective microphones and generating an indicator of intelligibility on a per microphone basis (fig.1 wt (20-24); par[0027-0028]/evaluating audio signal with noise correlating), the circuits each include a network output port (fig.1 wt (2) plurality).

However, Albus et al. fail to disclose of the port including a plurality of distributed detected of airborne ambient conditions. But, Ando et al. disclose of a system wherein the port including a plurality of distributed detected of airborne ambient conditions (fig.1 wt (13); par [0051]) for purpose of monitoring and detecting an anomaly in the environment. Thus, taking the combined teaching of Albus et al. and Ando et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Albus with

the port including a plurality of distributed detected of airborne ambient conditions for purpose of monitoring and detecting an anomaly in the environment.

Re claim 8, a system as in claim 7, but, the combined teaching of Albus et al. and Ando et al. as a whole, fail to disclose of where at least some of the detectors carry respective ones of the microphones. But, official notice is taken the concept of having the at least some of the detectors carry respective ones of the microphones is simply the designer's need. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the teaching of Albus et al. and Ando et al. as a whole, with having at least some of the detectors carry respective ones of the microphones for optimally making used of the spacing in the microphone chamber and reduce wiring cost.

The combined teaching of Albus et al. and Ando et al. as a whole, and the detectors are selected from a class which includes smoke detectors and gas detectors (fig.1 wt (13); par [0051]).

Re claim 18, Albus et al. discloses an apparatus comprising: a control circuits and a microphone coupled to the control circuits, the control circuits establishing an intelligibility index in response to signals from the microphone ("*fig.1*").

However, Albus et al. fail to disclose of the at least one ambient airborne condition sensor and control circuit couple to the sensor. But, Ando et al. disclose of a system wherein the at least one ambient airborne condition sensor and control circuit couple to the sensor (fig.1 wt (13); par [0051]) for purpose of monitoring and detecting an anomaly in the environment. Thus, taking the combined teaching of Albus et al. and Ando et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Albus with the at least one ambient airborne condition sensor and control circuit couple to the sensor for purpose of monitoring and detecting an anomaly in the environment.

Re claim 19, the apparatus as in claim 18, which provides at least one port for connection of the microphones ("*fig.1*"). but, the combined teaching of Albus et al. and Ando et al. as a whole, fail to disclose of the specific wherein the external microphone. But, official notice is taken having the external microphone is well known in the art, thus it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Albus et al. and Ando et al. as a whole, with external microphone for monitoring the environment condition of the vehicle.

Re claim 20, an apparatus as in claim 18, which include the network communications port (fig.1).

Re claim 21, the apparatus as in claim 20 with the speech intelligibility, But, the combined teaching of Albus et al. and Ando et al. as a whole, fail to disclose of the specific wherein the intelligibility index comprises at least one of STI, RASTI, SII, or, a subset of one of STI, RASTI, SII. But, official notice is taken the concept of having the intelligibility index comprises at least one of STI, RASTI, SII, or, a subset of one of STI, RASTI, SII is well known in the art. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Albus et al. and Ando et al. as a whole, with incorporating as speech intelligibility index comprises at least one of STI, RASTI, SII, or, a subset of one of STI, RASTI, SII for enabling the user to determined the susceptibility of the audio signals to noise interference.

Re claim 22, the apparatus as in claim 18 with the ambient condition sensor, wherein the ambient condition sensor comprises at least one of a smoke sensor, a flame sensor, a thermal sensor or a gas sensor (fig.1 wt (13); par [0051]).

Re claim 23, the apparatus as in claim 22, wherein the control circuits include a processor with inherent of having the executable instructions for carrying out intelligibility index processing (fig.1/processing).

Re claim 24, the apparatus as in claim 23 which includes a network communications port, the port facilitating coupling electrical energy to at least the control circuits, and coupling intelligibility indices at least from the control circuits to a medium (fig.1 (2,7)).

Re claim 25, an apparatus as in claim 24 where the communications port includes an interface for carrying out bi-directional communication via a medium("*fig.1 (7)*").

Re claim 26, the apparatus as in claim 25, where the interface includes circuits coupled to at least one of an electrical cable or an optical cable (fig.1-2; par [0026]).

Re claim 36, the system as in claim 32, but Albus et al. fail to disclose of which includes a plurality of distributed ambient condition detectors. But, Ando et al. disclose of a system includes a plurality of distributed ambient condition detectors (fig.1 wt (13); par [0051]) for purpose of monitoring and detecting an anomaly in the environment. Thus, taking the combined teaching of Albus et al. and Ando et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Albus with the includes a plurality of distributed ambient condition detectors for purpose of monitoring and detecting an anomaly in the environment.

Re claim 37, Albus et al. disclose of the system comprising: control circuits for producing electrical representations of speech intelligibility test signals and at least one audible output device coupled to the control circuits to audibly emit the speech intelliqibility test signals; a plurality of spaced apart acoustic sensors; and circuits coupled to respective acoustic sensors including circuitry for evaluating intelligibility of audio received by the respective acoustic sensors and generating an indicator of intelligibility on a per acoustic sensor basis (fig.1).

But, Albus et al. fail to disclose of including a plurality of smoke detectors. But, Ando et al. disclose of a system wherein including a plurality of smoke detectors (fig.1 wt (13); par [0051]) for purpose of monitoring and detecting an anomaly in the environment. Thus, taking the combined teaching of Albus et al. and Ando et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Albus with the including a plurality of smoke detectors for purpose of monitoring and detecting an anomaly in the environment.

The combined teaching of Albus et al. and Koike et al. as a whole, fail to disclose of at least some of the detectors carry respective ones of acoustic sensors. But, official notice is taken the concept of having of at least some of the detectors carry respective ones of acoustic sensors is simply the designer's need. Thus, it would

have been obvious for one of the ordinary skill in the art to have modified the teaching of Albus et al. and Koike et al. as a whole, with having of at least some of the detectors carry respective ones of acoustic sensors for optimally making used of the spacing in the microphone chamber and reduce cost.

Re clam 38, the system as in claim 32 where the control circuits include the inherent executable instructions for producing speech intelligibility test signals to be audibly output by the at least one audio output device (fig.1; par [0025]).

Re claims 39, the system as in claim 38 which includes additional executable instructions for processing the speech intelligibility test signals received from the respective sensors (see claim 38 as above).

Re claim 41; the apparatus as in claim 40; But, Albus et al. fail to disclose which includes a plurality of smoke detectors where at least one microphone is carried by a respective detector and coupled thereto. But, Ando et al. disclose of a system wherein includes a plurality of smoke detectors (fig.1 wt (13); par [0051]) for purpose of monitoring and detecting an anomaly in the environment. Thus, taking the combined teaching of Albus et al. and Ando et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Albus with includes a plurality of smoke

detectors for purpose of monitoring and detecting an anomaly in the environment.

The combined teaching of Albus et al. and Ando et al. as a whole, fail to disclose of the at least one microphone carried by a respective detector and coupled thereto. But, official notice is taken the concept of having the least one microphones carried by respective detector is simply the designer's need. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the teaching of Albus et al. and Ando et al. as a whole, with having the at least one microphones carried by respective detector for optimally making used of the spacing in the microphone chamber and reduce wiring cost.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./

Examiner, Art Unit 2614

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2614